

The Influence of Structural Features and Surface Properties on the Froth Flotation Extraction of Poorly Floatable Lead Minerals 20-119-5-33/59

and composition strongly differentiates from the easily floatable minerals. Therefore the authors tried to explain the unsatisfactory results in the floatation of the above mentioned minerals by the investigation of their crystallo-chemical characteristic features and of their surface properties with regard to water and various flotation reagents. Based on the results of these investigations also the most effective methods for the floatation of the mentioned minerals are to be found. The authors first of all calculated the energies of the crystal lattices of the lead minerals to be investigated by means of the method by Fersman. According to the results given in a table the energies of the crystal lattices of cerussite, anglesite and wulfenite (group I) differ only little from each other. The second group of minerals (mimetite, pyromorphite and vanadinite) have great values of lattice energies. The greatest energies of the crystal lattice have bournonite, mimetite, plumbojarosite and pyromorphite. Already the given data make possible an orientation in the estimation of the flotation properties with regard to their capability for interaction of all mentioned minerals with the reagents. The inve-

Card 2/3

The Influence of Structural Features and Surface Properties on the Froth Flotation Extraction of Poorly Floatable Lead Minerals 20-119-5-33/59

stigation carried out showed the coincidence of the flotation properties with the capability for interaction of the mentioned minerals with the calculated values of energy of the crystal lattice. Thus, for instance, the effectiveness of the action of sodium sulfide on oxide lead minerals decreases in the transition from the minerals of group I to the minerals of groups II and III. Various details concerning the flotation of poorly floatable minerals are given. Phosphotene, petroleum, lubricating oil for automobiles, and polugudron together with xanthogenates served as new effective flotation reagents. Finally the author thanks N.V. Belov, Member, Academy of Sciences, and G. B. Boki for valuable advice. There are 1 table and 2 references, 0 of which are Soviet.

SUBMITTED: December 18, 1957

Card 3/3

SOROKIN, M.M.; RAUKHVARGER, Ye.L.; SHCHEVELEVA, A.S.

Problem of the flotation action of willow oil and its components.
Zhur. prikl. khim. 37 no.2:422-429 F '64.

(MIRA 17:9)

1. Institut gornogo dela imeni Skochinskogo.

SHCHEV'EV, L.M.

Case of systemic scleroderma. Terap.arkh. 33 no.8:103-104 '61.
(MIRA 15:1)

1. Iz terapevticheskogo otdeleniya 2-y gorodskoy bol'nitsy,
Pereslavl'-Zalesskiy.
(SCLERODERMA)

SHCHEV'YEV, L.M.

Some characteristics of the course of trichinosis. Sov. med. 28
no.7:129-131 JI '64. (MIRA 18:8)

1. Terapevticheskoye otdeleniye (zav. L.M.Shchev'yev) Losino-
Petrovskoy (Moskovskaya oblast') gorodskoy bol'nitsy (glavnyy
vrach F.A.Slavin).

SHCHEYMAN, A. I.

25956 Shcheyman, A. I. Nervnyy faktor v patogeneze vyalo granulirushchikh
ran. V sb: Problemy vosstanovit. lecheniya invalidov Otechestv.
voyny. Astrakhan', 1948, s. 203-07. Sm. Takzhe No. No. 25834,
25992, 26001.

SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948

SHCHEVYAKOVA, L.A.; KOTLYAR, G.Ya.; VLEDUTS, G.E.

Use of systems of binary structural notations for retrieval of
information about organic compounds. NTI no.4:31-34 '65.

(MIRA 18:6)

SHCHEZHIN, V. T.

"Behavior of Directional Negative-Sequence Protection With High Frequency Blocking by Induction Relays Under Conditions of the Transient Processes Resulting From Short Circuits in 400-KV Lines Equipped with Longitudinal Capacitive Compensation." Cand Tech Sci, Moscow Order of Lenin Power Engineering Inst imeni V. M. Molotov, 19 Feb 54. Dissertation (Vechernyaya Moskva Moscow 10 Feb 54)

SO: SUM 186, 19 Aug 1954

112-57-8-16530

Translation from: Referativnyy zhurnal, Elektrotehnika, 1957, Nr 8, p 74 (USSR)

AUTHOR: Shchezhin, V. T.

TITLE: Behavior of a High-Speed Filter Directional Carrier-Current Relay Protective System Under Transient Conditions Accompanying Short Circuits on 400-kv Lines (Povedeniye bystrodeystvuyushchey fil'trovoy napravlennoy vysokochastotnoy zashchity v usloviyakh perekhodnykh protsessov pri korotkikh zamykaniyakh v liniyakh 400 kv)

PERIODICAL: Sb. nauch. tr. Kuybyshevsk. industr. in-ta (Collection of Scientific Work of the Kuybyshev Industrial Institute), 1956, Nr 6, kv. 1, pp 139-149

ABSTRACT: This article presents the results of testing a directional carrier-current relay protective system staged on an electrodynamic simulator of a 400-kv transmission line. The reason for false operation of an induction relay under transient conditions is explained. A method of eliminating false relay operations is examined.

G. G. Ya.

Card 1/1

L 20697-65 EWT(1)/EWT(m) SSD/AEDC(a)/AS(mp)-2/ASD(p)-3 JD

S/0124/64/000/008/B124/B124

ACCESSION NR: AR4047553

SOURCE: Ref. zh. Mekhanika, Abs. 8B719

AUTHOR: Temnikov, A.V., Shchibrayev, Ye. V.

TITLE: The use of the electroheat analogy in the study of heat emission associated with the flow around bodies of arbitrary configuration

CITED SOURCE: Tr. Kuyby*shevsk. aviats, in-t, vy*p. 15, ch. 2, 1963, 299-307

TOPIC TAGS: heat emission, heat emission coefficient, electroheat analogy, liquid flow, stream cooling

TRANSLATION: A method is proposed for the determination of local heat emission coefficients, based on the electroheat analogy. An analytical solution of the problem is not required in this connection, and it is not necessary to carry out a time-consuming harmonic analysis in order to determine the heat emission coefficient. Also eliminated is the need to find the mapping function or to resort to an approximate solution in the case of profiles which do not lend themselves to conformal mapping, as is necessary with the method proposed by G.A. Varshavskiy. The new method, presented in this article, may be extended to non-stationary problems. The solution technique on EI-12 or EGDA

Card 1/2

L 20697-65

ACCESSION NR: AR4047553

integrators is quite simple. The solution to a test problem is given (stream cooling of a circular cylinder), with the solution worked out on an ohmic resistance grid. Formulae are presented for calculating the elements of the grid. L. V. Knyazev.

SUB CODE: TD, 1E

ENCL: 00

Card 2/2

L 15715-66 EWT(1)/E.P(m)/EWT(m)/ETC(F)/EPE(n)-2/ENG(m)/EWA(d)/EWA(1)/ECS(K)
 ACC.NR: AT6003101 JD/WW UR/3181/63/000/015/0299/0307

AUTHOR: Temnikov, A.V.; Shchibrayev, Ye.V.

ORG: None

TITLE: Use of an electrothermal analogy for study of heat transfer in flow around a body of arbitrary shape

SOURCE: Kuybyshev. Aviatsionnyy institut. Trudy, no.15, pt.2, 1963.
 Doklady kustovoy nauchno-tekhnicheskoy konferentsii po voprosam mekhaniki zhidkosti i gaza (Reports of the Joint scientific-technical conference on problems of the mechanics of liquid and gas), 299-307

TOPIC TAGS: convective heat transfer, heat conduction, integrated electronic device

ABSTRACT: The method of electrothermal analogy is based on an analogy between the mathematical description of heat conduction processes in solid bodies and processes of the propagation of an electric current in electrically conducting media. Limiting the case to steady state processes, the heat conduction equation for the temperature field can be written in the form:

$$\frac{\partial^2 t}{\partial x^2} + \frac{\partial^2 t}{\partial y^2} + \frac{\partial^2 t}{\partial z^2} = 0. \quad (2)$$

Card 1/2

L 15715-66
ACC NR: AT6003101

2

The boundary condition is written in the form:

$$t_w = t_w(x, y, z). \quad (3)$$

After transformation to a dimensionless form, the authors proceed to a mathematical solution of the problem. It is claimed, on the basis of the results, that the method of electrothermal analogy is applicable to the study of local heat transfer, and that it is simple and sufficiently accurate for engineering purposes. Use of the method is stated to be especially advantageous if there is available an EI-12 electronic integrator, Type EGDA, or other similar machines, for solution of the differential Laplace equations which arise in the problem. Orig. art. has: 20 formulas and 3 figures.

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 006/ SOV REF: 000/ OTH REF: 003

SHCHIBRAYEVA, L.V. (Kuybyshev-obl.)

Diagnostic value of the pyramidon test in subfebrile conditions.
Kaz. med. zhur. no.5:77-78 S-O '61. (MIRA 15:3)

(FEVER)
(AMINOPYRENE)

TYURINA, G.I.; SHCHIBRIK, V.I.

Experience in biogeochemical studying of a section of a complex
metal deposit in central Kazakhstan. Mat.po geol.i pol.iskop.
TSentr.Kazakh. no.2:44-48 '62. (MIRA 15:12)
(Kazakhstan--Ore deposits) (Geochemical prospecting)

SECHIBROV, A.

We are constructing simplified manure pits. Sel'.stoi. 15
no.5:28 My '60. (MIRA 13:8)

1. Glavnyy agronom Ivanovskogo oblsel'khozupravleniya.
(Farm manure--Storage)

SHCHIBRYA, A.A. I KOPERZHINSKIY, V.V.

25072 KOPERZHINSKIY, V.V. I SHCHIBRYA, A.A. Voprosy Biologii Tsveteniya I
Plodoobrazovaniya U Lyuts-erny. V. Sh: Voprosy Kormodobyvaniya.
Vyp. 2. M., 1949, S. 113-20

SO: Letopis', No. 33, 1949

SHCHIBRYA, A. A. , kand.sel'skohozyaystvennykh nauk; MART'YANOVA, A. I. ;
kand.sel'kokhozyaystvennykh nauk

Pollination characteristics of the bird's foot trefoil. Agrobio-
logiia no.5:694-697 S-O '60. (MIRA 13:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kormov imeni
V.R. Vil'yamsa, Moskovskaya oblast'.
(Bird's foot trefoil)
(Fertilization of plants)

SHCHIBRYA, A.A.

Conditions necessary for the formation of rhizomes in the apnless
brome grass and quack grass. Biul. MOIP. Otd. biol. 66 no.3:149-
150 My-Je '61. (MIRA 14:6)
(BROME GRASS) (QUACK GRASS)
(BOTANY--MORPHOLOGY)

SHCHIBRYA, G.G.; MOROZOV, N.M.; TEMKIN, M.I.

Kinetics and mechanism of catalytic reaction between carbon
monoxide and water vapor. Part 1: Reaction on ferrochromium
oxide catalyst. Kin. i kat. 6 no. 6:1057-1068 N-D '65
(MIRA 19:1)

1. Fiziko-khimicheskiy institut imeni Karpova. Submitted
February 13, 1965.

SHCHIBRYA, G.G.; MOROZOV, N.M.; TEMKIN, M.I.

Kinetics and mechanism of a catalytic reaction between carbon monoxide and water vapor. Part 2: Reaction on a zinc-chromium copper oxide catalyst. Kin. i kat. 6 no. 6:1115-1117 N-D '65
(MIRA 19:1)

1. Fiziko-khimicheskiy institut imeni Karpova. Submitted February 13, 1965.

BRESLAVETS, L.P.; HEREZINA, N.M.; SHCHIBRYA, G.I.

Effect on certain agricultural plants of prolonged irradiation with small doses of gamma rays. Biofizika 1 no.6:555-563 '56. (MLRA 10:1)

1. Institut biologicheskoy fiziki Akademii nauk SSSR, Moskva.
(GAMMA RAYS--PHYSIOLOGICAL EFFECT)
(PLANTS, EFFECT OF RADIATION ON)

BRESLAVETS, L.P.; BEREZINA, N.M.; SHCHIBRYA, G.I.; ROMANCHIKOV, M.L.

Effect of ionizing radiations on the growth and development of certain agricultural plants. Biofizika 1 no.7:628-632 '56.

(MLRA 9:12)

1. Institut biologicheskoy fiziki Akademii nauk SSSR, Moskva.
(PLANTS, EFFECT OF RADIATION ON)

SHCHIBRYA, G.I.

Pretreatment and supplementary nutrition for seeds as a factor
in raising carrot yields. Trudy VNIVI 6:180-184 '59.

(MIRA 13:7)

1. Sel'skokhozyaystvennyy otdel Vsesoyuznogo nauchno-issledo-
vatel'skogo vitaminного instituta.

(SEEDS)

(CARROTS)

(POTASSIUM BROMIDE)

SHCHIBRYA, G.I.; YAZYKOVA, V.A.; BRESLAVETS, L.P.; BEREZINA, I.M.

Action of ionizing radiation on some vitamin-bearing plants.
Trudy VNIVI 6:184-189 '59. (MIRA 13:7)

1. Tsentral'naya biologicheskaya stantsiya Vsesoyuznogo nauchno-
issledovatel'skogo vitaminного instituta.
(PLANTS, EFFECT OF RADIOACTIVITY ON)

BRESLAVETS, L.P.; BEREZINA, N.M.; SHCHIBRYA, G.I.; ROMANCHIKOVA, M.L.;
YAZYKOVA, V.A.; MILESHKO, Z.F.

Inreasing the yield of radishes and carrots by irradiating seeds
with gamma and X rays before sowing. Biofizika 5 no.1:81 '60.

(MIRA 13:6)

(RADISH) (CARROTS) (PLANTS, EFFECT OF RADIATION ON)

BEREZINA, N.M.; SHCHIBRYA, G.I.; ROMANCHIKOVA, M.L.

Results of irradiating seeds of Rubin radishes under conditions of
hotbed culture. Radiobiologiya 1 no.3:461-462 '61. (MIRA 14:10)

1. Institut biologicheskoy fiziki AN SSSR, Moscow
(PLANTS, EFFECT OF GAMMA RAYS ON) (SEEDS)

SHCHIBRYA, G.I.; BEREZINA, N.M.; PERETOKIN, I.V.; YAZYKOVA, V.A. [deceased]

Increasing the yield and vitamin content of strawberries following cultivation of planting material in a gamma field. Trudy VNIVI 8:86-89 '61. (MIRA 14:9)

1. Sel'skokhozyaystvennyy otdel Vsesoyuznogo nauchno-issledovatel'skogo vitaminного instituta.
(Strawberries) (Plants, Effect of radioactivity on)

BEREZINA, N.M.; SHCHIBRINA, G.I.; DROZHZHINA, V.V.; RIZA-ZADE, R.R.;
PARASOVA, A.D.

Effect of Co^{60} gamma irradiation of tubers before planting on
the yield and vitamin C content of potatoes. Radiobiologia
3 no.1:139-142 '63. (MIRA 16#2)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(PLANTS, EFFECT OF GAMMA RAYS ON) (POTATOES)
(ASCORBIC ACID)

SHCHIBRAYEV, E. V., and KUDRYASHEV, L. I.

"Heat and Transfer at a Jet Flow Round Bodies."

Report submitted for the Conference on Heat and Mass Transfer,
Minsk, BSSR, June 1961.

S/124/62/000/010/011/015
D234/D308

AUTHORS: Kudryashev, L. I. and Shchibrayev, Ye. V.

TITLE: Application of the generalized theory of thermal regularity to the determination of the heat loss coefficient of complex bodies in air streams

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 10, 1962, 97, abstract 10B603 (Tr. Kuybyshevsk. aviats. in-t, 1961, no. 12, 83-92)

TEXT: The authors give an analytical proof of the existence of thermal regularity for a multilayer cylinder whose thermal conductivity and heat loss coefficients depend on temperature. Without corresponding specifications, the authors take the equations for a multilayer plate instead of those for a cylinder. Theoretical results are compared with experimental data in an example. [Abstracter's note: Complete translation.]

Card 1/1

SHCHICHENKOV, M.V.

Effect of fluid extracts of the roots of ginseng and Eleuthero-
coccus on dark adaptation and visual acuity. Mat. k izuch. zhen'.
i drug. lek. rast'. Dal'. Vest. no.5:241-244 '63. (MIRA 17:8)

1. Dal'nevostochnyy filial imeni Komarova Sibirskogo otdeleniya
AN SSSR.

SHCHICHENKOV, V. V.

Works of the Central Peat Experimental Station, (Min of Agri. RSFSR)

Volume III, 1936, 87 pages, "Peat in Vegetable". by Shchichenkov, V. V.

SO: Botanicheskiy Zhurnal, Vol XXXV, No 1, pp 100-110,
Jan-Feb 1950, Russian bimonthly, Moscow/Leningrad (U-5511,
12 Feb 1954)

ALIMKIN, N.I.; SHCHICHILIN, K.I.

Beaches and marinas, Gor.khoz.Mosk. 34 no.6:15-18 Je '60.
(MIRA 13:7)

1. Zamestitel' nachal'nika Upravleniya bytovogo i kommunal'nogo
obslyzhivaniya (for Alimkin). 2. Nachal'nik otdela ekspluatatsii
Upravleniya bytovogo i kommunal'nogo obslyzhivaniya (for Shchuchilin).
(Moscow region--Bathing beaches)
(Moscow region--Marinas)

L 52153-65 EWA(h)/EWP(k)/EWT(d)/EWT(1)/EWT(m)/EWP(h)/EWP(b)/T/EWA(d)/EWP(1)/
EWP(v)/EWP(t) Pf-4/Pi-4/Pab JD
ACCESSION NR: AP5015549 UR/0286/65/000/008/0087/0087

AUTHORS: Sviridov, A. P.; Shchichilin, V. M.

TITLE: A device for machining with ultrasound. Class 49, No. 170272

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 8, 1965, 87

TOPIC TAGS: ultrasound, magnetostriction oscillator, abrasive

ABSTRACT: This Author Certificate presents a device for machining with ultrasound (see Fig. 1 on the Enclosure). The device contains a magnetostrictive converter, working tables, and feeding systems for the abrasive suspension. To increase its productivity, the magnetostrictive converter is provided with two concentrators, one at each of its ends. Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 22Aug62

ENCL: 01

SUB CODE: IE

NO REF SOV: 000

OTHER: 000

Card 1/3

SHCHICHKO, V. S.

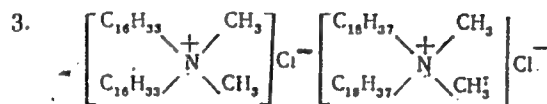
Cand Agr Sci - (diss) "Crops of Crimean pine under conditions of mountainous Crimea." Kiev, 1961. 24 pp; (Ministry of Agriculture Ukrainian SSR, Ukr Academy of Agr Sci); 150 copies; price not given; (KL, 7-61 sup, 253)

29160

Use of activated diatomite ...

S/021/61/000/004/012/013
D213/D303

alcohol and methanol; 3)



(Arquade-2HT), a yellow substance melting at 69-70°C, and soluble in benzene and dichloroethane; 4) $\text{C}_{17}\text{H}_{33}\text{CONH}_2$ (Armide-0), a white waxy substance insoluble in water but soluble in organic solvents, melting at 68-69°C. The experimental results are given in Table 2. A second set of experiments was conducted by mixing the amines directly into the raw rubber preparation. The results obtained showed a considerable improvement in the tensile strength of the rubber and twofold acceleration in reaction time. Comparison of results shows that the activity of the amines deposited on the diatomite is less than the activity of the directly admixed amines. The reduced activity in the case of the activated diatomites can be explained

Card 2/4

Use of activated diatomite ...

S/021/61/000/004/012/013
D213/D303

by the elementary structure of the diatomite and the active additive. Apparently one of the amino groups of these compounds combines with the structure of the diatomite, thus reducing the availability of these groups for the formation of aminopolysulphide complexes which on decomposition produce active sulphur. The greater activity of the directly admixed amines is, therefore, simply explained by the greater concentration of the active amines which also help to accelerate the reaction. The action of the amines is to give the diatomite surface a greater affinity for the rubber. This tends to distribute the diatomite better through the mass of the rubber thus further increasing its strength. There are 3 tables and 3 Soviet-bloc references.

ASSOCIATION: Instytut zahal'noyi ta neorhanichnoyi khimiyi AN URSR, Dnipropetrovs'kyi khimiko-tekhnolohichnyy instytut (Institute of General and Inorganic Chemistry, AS UkrSSR, Dnipropetrovsk Institute of Industrial Chemistry)

SUBMITTED: December 26, 1960
Card 3/4

BLIKH, G.A.; SHCHICHKO, Z.V.

Amine-containing organic accelerators of rubber vulcanization.
Kauch.i rex. 21 no.7:11-15 J1 '62. (MIRA 15:7)

1. Dnepropetrovskiy khimiko-tehnologicheskii institut imeni F.E. Dzerzhinskogo.
(Vulcanization)

SHCHICHKO, Z.V. [Shehychko, Z.V.]; SIMAKOVA, E.P. [Symakova, E.P.];
BOGUS'AVSKIY, D.B. [Bchuslavs'kyi, D.B.]; BLOKH, G.A. [Blok, H.A.], doktor khim. nauk; PIVOVAROVA, Yu.V. [Pyvovarova, IU.V.];
BOROLUSHKINA, Kh.N.

Increasing the strength of the bonds between the elements of
automobile tires. Khim. prom. no.4:21-22 O-D '64.

(MIRA 18:3)

MUZYLEV, B.T., inzh.; SHCHIDAREV-VITKOVSKIY, G.V., inzh.

Noncontact proportioning circuit. Mekh.i avtom.proizv. 18
no.3:25-26 Mr '64. (MIRA 17:4)

Category : USSR/Electronics - Semiconductor Devices and Photoelements

H-8

Abs Jour : Ref Zhur - Fizika, No 2, 1957, No 4368

Author : Shchigal', F.A., Madoyan, S.G., Petrov, L.A., Gol'denberg, V.A.,
Lazareva, G.V., Stepanenko, I.P., Shuyskiy, L.I.

Title : Germanium Diodes and Transistors and their Application

Orig Pub : Radiotekhn. proiz-vo. Sb. I. M., 1956, 3-25

Abstract : Popular article

Card : 1/1

SHCHIGEL', A.M., inzhener.

Europe's power problems. Gidr.stroi. 26 no.6: 55-56 Je '57.
(MIRA 10:7)
(Europe--Electric power)

POVIDAYLO, V.A.; SHCHIGEL', V.A.

Vibratory tray conveyor. Mashinostroitel' no.12:7 D '63.
(MIRA 17:1)

POVIDAYLO, Vladimir Aleksandrovich; SILIN, Radomir Ivanovich;
SHCHIGEL', Viktor Abramovich; KOMAROV, M.S., doktor tekhn.
nauk, red. vypuska; FURER, P.Ya., red.; GORNOSTAYPOL'SKAYA, M.S.,
tekhn. red.

[Vibratory devices in the manufacture of machinery] Vibratsionnye
ustroistva v mashinostroenii. Moskva, Mashgiz, 1962. 109 p.
(MIRA 15:6)

(Machinery industry)

(Vibrators)

POVIDAYLO, V.A., kand. tekhn. nauk; SHCHIGEL', V.A., inzh.

Vibratory screw hoist. Mekh. i avtom. proizv. 17 no.8:
41-42 Ag '63. (MIRA 16:10)

GAVRILOVICH, Mikhail Al'bertovich, dotsent, .kand.med.nauk; SAYET, Aleksandr Gavrilovich, assistant; SHCHIGEL'SKIY, Vyacheslav Ivanovich, assistant; MOGILEVCHIK, Z.K., prof., nauchnyy red.; SHEVLAK, V.A., red.; ZIMA, Ye.G., tekhnred.

[Hygiene for school children; collection from the series, "What one must know about the training of children."] Gigiena detei shkol'nogo vozrasta; sbornik iz tsikla "Chto nuzhno znat' o vospitanii detei." Minsk, 1960. 38 p. (Obshchestvo po rasprostraneniю politicheskikh i nauchnykh znaniy Belorusskoi SSR, no.24).
(MIRA 14:1)

1. Kafedra gigiyeny Minskogo meditsinskogo instituta (for Sayet, Shchigel'skiy). 2. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Mogilevchik).
(CHILDREN--CARE AND HYGIENE)

SHIROKOVSKIY, R.M.; SHCHIGEL'SKIY, V.M.

Induction transducer of displacement with linear scale. Avtom.
svar. 15 no.3:84-85 Mr '62. (MIRA 15:2)

1. Ordena Trudovogo Krasnogo Znameni institut elektrosvarki
imeni Ye.O. Patona in USSR.
(Electric welding)
(Automatic control)

BOGDANOVA, K.G.; POLEVAYA, N.I.; SHCHIGOLEV, A.D.

Absolute age of granitoids in the southwestern Altai. Inform.sbor.
VSEGEI no.54:83-94 '62. (MIRA 17:1)

COUNTRY : USSR
 CATEGORY : Cultivated Plants. Fruits. Berries. M
 ABS. JOUR. : RZhBiol., No. 23 1958 No. 104323
 AUTHOR : Mel'nik, S. A. Shchiglovskaya, V. I.
 INST. : Odessa Agricultural Institute
 TITLE : Ampelometric Method of the Determination of the Leaf
 Surface Area in Grapevine.
 ORIG. PUB. : Tr. Odessk. s.-kh. In-ta, 1957, 3, 82-88
 ABSTRACT : A method, called by the authors ampelometric, is proposed
 for the determination of grapevine leaf area without
 plucking leaves off the vine. In this method, the dia-
 meter of each leaf on each shoot is determined success-
 ively from the base to the tip. The diameter of the leaf
 is taken to be the distance in longitudinal direction from
 the farthest projecting tooth of the lower lobe to the tip
 of the central tooth of the upper terminal lobe. For

CARD: 1/2

137

DOROKHOV, B.A., red.; ZAKHAREVICH, B.G., red.; IVANOV, A.S., red.; SEMENOV, S.M., red.; CHIKOV, Ye.I., red.; SHCHIGLOVSKIY, B.M., red.

[Catalog of standard estimates for construction work at prices set as of July 1, 1955, for buildings of the second group administered by the Ministry of the Lumber Industry of the U.S.S.R., located in Altai Territory, Kemerovo, Novosibirsk, Omsk and Tomsk provinces and Tyumen Province (south of the 64th parallel), the 18th territorial district of the U.S.S.R.] Katalog edinichnykh rastsenok na stroitel'nye raboty v tsenakh, vvodennykh s 1 iulia 1955 goda dlia stroek vtoroi gruppy Ministerstva lesnoi promyshlennosti SSSR, raspolozhennykh v Altaiskom krae, Kemerovskoi, Novosibirskoi, Omskoi, Tomskoi oblastiakh i Tiimenskoi oblasti (iuzhnee 64 paralleli) 18-go territorial'nogo raiona Soiuzs SSR. Leningrad. Book 1. 1957. 111 p. Book 2. 1957. 107 p. Book 3. 1957. 139 p. (MIRA 10:12)

1. Russia (1923- U.S.S.R.) Upravleniye kapital'nogo stroitel'stva.
(Building--Estimates)

17
DOROKHOV, B.A., red.; ZAKHAREVICH, B.G., red.; IVANOV, A.S., red.;
SEMEENOV, S.M., red.; CHIKOV, Ya.I., red.; SHCHIGLOVSKIY, B.M., red.

[Technical section for catalogs of uniform estimates of construction work and costs, in effect as of July 1, 1955, for structures of the second group of the Ministry of the Lumber Industry of the U.S.S.R.; for all territorial districts] Tekhnicheskaya chast' k katalogam edinichnykh rastsenok na stroitel'nye raboty v tsenakh, vvedennykh s 1 iul'ia 1955 goda dlia stroek vtoroi gruppy Ministerstva lesnoi promyshlennosti SSSR (dlia vseh territorial'nykh raionov). Leningrad, 1957. 222 p. (MIRA 10:12)

1. Russia (1923- U.S.S.R.) Ministerstvo lesnoy promyshlennosti.
Upravleniye kapital'nogo stroitel'stva.
(Construction industry--Costs)

~~I 18322-63~~ EWT(m)/BDS ESD-3 RH
ACCESSION NR: AP3004967 S/0076/63/037/008/1689/1693

AUTHORS: Iossel, Yu. Ya.; Shchiglovskiy, K. B. (Leningrad) 54

TITLE: Analysis of multi-electrode galvanic systems by means
of equivalent electrical circuits

SOURCE: Zhurnal fiz. khimii, v. 37, no. 8, 1963, 1689-1693

TOPIC TAGS: corrosion, multi-electrode galvanic system,
equivalent electrical system, double electrical layer,
electrolyte-metal juncture

ABSTRACT: Authors analyzed a multi-electrode galvanic system in order to learn something about its corrosion-producing properties. The current path in a galvanic system proceeds through the electrolyte and metal, and the function of both links of the path is the source of e.m.f. since the charged double electrical layer also originates here. The difference between potentials of the electrolyte and metal is equal to the difference of the electrode potential of the metal and some function of current representing

Card 1/4

L 18322-63

ACCESSION NR: AP3004967

the polarization. Hence, the double electrical layer can be represented by the source of e.m.f., the direction and magnitude of which is determined by the electrode potential of the metal having an electronic resistance $R_i = (1/I)f(I)$. It is possible to represent the elemental segment of the galvanic system in Figure 1 of the enclosure by the equivalent electrical circuit shown in Figure 2 of the enclosure. Any galvanic system can be represented through an equivalent electrical circuit by replacing the actual cells with centralized e.m.f. sources and also by linear and non-linear resistances. The method of connection of the cells depends upon current distribution in the real system. The introduction of an equivalent circuit makes it possible to investigate a multi-electrode system on its model. Orig. art. has: 6 figures.

ASSOCIATION: none

SUBMITTED: 29Dec60

DATE ACQ: 06Sep63

ENCL: 02

SUB CODE: PH, EE

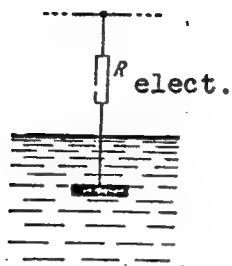
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Card 2/4

L 18322-63
ACCESSION NR: AP3004967

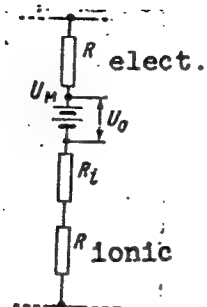
ENCLOSURE: 01



Card 3/4

L 18322-63
ACCESSION NR: AP3004967

ENCLOSURE: 02
0



U_M - potential of metal.

U_0 - electrode potential of metal.

$$R_i = (1/I)f(I)$$

Card 4/4

| 1ST AND 2ND ORDERS | | | | | | | | | | PRINCIPLES AND PROPERTIES INDEX | | | | | | | | | | 3RD AND 4TH ORDERS | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|---------------------------------|--|--|--|--|--|--|--|--|--|--------------------|--|--|--|--|--|--|--|--|--|
| <div style="display: flex; justify-content: space-between;"> bc A-3 </div> <p style="text-align: center; margin-top: 20px;"> Determination of halogens in organic compounds. M. B. BRUMMER. (Farm. Zhur., 1939, 500—513).—The compound is reduced by Zn and AcOH in presence of NaOAc and CuSO₄, first in the cold for 1 hr. and then under a reflux condenser for 5—10 min. The halide is determined volumetrically. </p> <p style="text-align: center;">CHEMICAL ABSTRACTS.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ASS. SLA METALLURGICAL LITERATURE CLASSIFICATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1ST ORDER | | | | | | | | | | 2ND ORDER | | | | | | | | | | 3RD ORDER | | | | | | | | | |
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BC

1ST AND 2ND ORDERS
PROCESSES AND PROPERTIES INDEX
3RD AND 6TH ORDERS

82

Determination of chloroform. M. SCHTSCHIGOL.
(Khim. Farm. Prom., 1933, 150—151).—10 drops of
 CHCl_3 in 5 c.c. of PhMe are treated for 2 hr. with
0.5N-EtOH-KOH; after dilution and acidification
with HNO_3 , the Cl is determined by Volhard's method.
Ch. Abs.

COMMON ELEMENTS
COMMON VARIANTS INDEX
OPEN
MATERIALS INDEX
AS N. S. L. A METALLURGICAL LITERATURE CLASSIFICATION
E-2

Determination of chloride ion in presence of bromide and iodide ions. M. SCHRAMM (J. Gen. Chem. Russ., 1933, 3, 640, 643). To be determined by the ordinary methods in 10 c.c. of a 2% solution of the substance, total halides are determined in a second 10-c.c. portion, and Cl⁻ is determined in a third portion by adding 35-40 c.c. of 2% aq. NH₃ and sufficient AgNO₃ to ppt. total halides, when AgBr and AgI are pptd. Ag is pptd. from the filtrate as Ag₂AsO₄, from which Ag is separated by the action of aq. Na₂CO₃, the Ag is dissolved in HNO₃, and determined by Volhard's method.

R. T.

BC

Detection of mercury in presence of all the cations. ~~M. ammonium~~ (Khem. Form. Prom., 1934, No. 1, 44-45).—The sample is treated with excess of 10% KI and 30% NaOH, heated, and filtered. The filtrate containing H_2HgI_4 is treated with 1 c.c. of glycerol and 2-3 c.c. of sat. NaOH, and boiled for several min. Darkening of the solution or a black ppt. indicates Hg. CH. Abs. (c)

Сн. Авт. (с)

ASME METALLURGICAL LITERATURE CLASSIFICATION

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CA

7

Detection of zinc. M. Schigol. *J. Applied Chem.* (U. S. S. R.) 7, 1285-7(1934).—The test recommended depends upon the fact that Zn^{++} forms a sol. zincate ion when treated with NaOH in excess and a sol. $Zn(NH_4)_2^{++}$ ion with excess NH_4OH . In this way Zn^{++}

and granulated Sn, heat to beginning reaction, decant the liquid and wash the Sn 7-8 times with H_2O . Add then 1 cc. H_2O and 0.5 cc. concd. HNO_3 , boil for 1-1.5 min., dil. with H_2O and decant the milky liquid from the remaining Sn into another test tube. Add 0.2 cc. of a satd. soln. of NaF (to form the complex ion FeF_4^-), add 0.2 g. $ZnSO_4$, and 0.3 cc. of a soln. of $HgNH_4$ thiocyanate and agitate vigorously. Cu is indicated by the sepn. of a violet-reddish ppt. of $ZnHg(CNS)_2$. $CuHg(CNS)_2$ adsorbed on $ZnHg(CNS)_2$. Should Ag and mercurous ions be present, then the corresponding chlorides are pptd. during the HCl introduction. If, however, mercurous ions are also present, they are converted into $HgCl_2$ by adding an HCl soln. of $SnCl_2$ and filtering. The filtrate is then treated as above. This method permits sepn. of Co salts in the presence of 0.001% Cu. A. A. Boethlingk

ASAC SLA METALLURGICAL LITERATURE CLASSIFICATION

Mercurimetry | Determination of halides M
 Schlegel. J. Applied Chem. 11 S S R 9, 940-9
 in French 1939; 1936; cf. C. A. 30, 5528. The detn.
 of halides with $Hg(NO_3)_2$ is based on the general reaction:
 $Hg(NO_3)_2 + 2KX \rightarrow HgX_2 + 2KNO_3$ (X = halogen).
 To prep. 0.1 N $Hg(NO_3)_2$, dissolve 50 g. $Hg(NO_3)_2 \cdot 2H_2O$ in
 1 l. of about 0.2 N HNO_3 and store over Hg . To 25 cc.
 of 0.1 N HCl or $NaCl$ add 0.05 N NH_4SCN and 2-3 cc. of
 concd. $Fe(NO_3)_3$ (formation of $Fe(SCN)_6$), and titrate
 with the $Hg(NO_3)_2$ soln. to a complete decolorization. Det.
 by a blank titration the amt. of $Hg(NO_3)_2$ consumed in the
 titration of the indicator. Use a similar procedure in the
 detn. of chlorides and bromides. In the reaction of Hg^{2+}
 salts with $(SCN)^-$, half the Hg is converted to $(Hg-
 SCN)_2^{+}$ and the other half is pptd. as metallic Hg .
 The resulting black discoloration of the soln. interferes
 with the titration. Hence for the standardization of the
 NH_4SCN soln. and the detn. of iodides (KI) by the method
 of residue Hg^{2+} is preliminary oxidized with $KMnO_4$ in
 HNO_3 to Hg^{2+} . To prep. the NH_4SCN soln., add to
 25 cc. of 0.1 N $Hg(NO_3)_2$, 5 cc. of dil. HNO_3 , follow with a
 dropwise addn. of satd. $KMnO_4$ to a stable rose and with
 $FeSO_4$ soln. to decolorization. Titrate the cold soln. with
 the NH_4SCN soln. To det. 1, dissolve a sample (KI)
 in H_2O to obtain 100 cc. of about 0.1 N soln. To 25 cc. of
 the soln. add 50 cc. of 0.1 N $Hg(NO_3)_2$ and filter. Wash the
 flask and the ppt. on the filter 4-5 times with water contg.
 1-2 drops of dil. HNO_3 . Treat the united wash waters
 and filtrate contg. the excess $Hg(NO_3)_2$ soln. with 2-3 drops
 of dil. HNO_3 , oxidize with $KMnO_4$ to a rose and decolorize
 the soln. with $FeSO_4$ soln. Titrate the $Hg(NO_3)_2$ with the
 standard NH_4SCN soln. to a faint rose, and calc. by the
 difference the amt. of $Hg(NO_3)_2$ used in combining with the
 1 ion. The detns. are accurate to 0.01%. C. B.

COMMON ELEMENTS
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1ST AND 2ND COLUMNS
PROCESSES AND PROPERTIES INDEX
1ST AND 4TH COLUMNS

ANALYSIS OF GROUP II AND III CATIONS IN PRESENCE OF PO_4^{3-} . M. SONTAGHOL and N. DUBINSKI (J. Appl. Chem. Russ., 1936, 9, 1510-1513).— Na_2CO_3 and aq. NH_3 are added, when Fe^{3+} , Al , Cr^{III} , Mn^{II} , Ca , Ba , Sr , and Mg carbonates, phosphates, and hydroxides are pptd., whilst Zn , Co , and Ni remain in solution as amines. The ppt. is treated with $AcOH$ to dissolve salts of Ca , Ba , and Sr . The three fractions thus obtained are further analysed by the ordinary procedures. R. T.

COMMON ELEMENTS
OPEN
MATERIALS INDEX
A.S.M.-S.A. METALLURGICAL LITERATURE CLASSIFICATION
1ST AND 2ND COLUMNS
1ST AND 4TH COLUMNS
1ST AND 2ND COLUMNS
1ST AND 4TH COLUMNS

Mercurimetry. II. The action of ammonium hydroxide on mercuric and mercurous chlorides. M. H. Shchigol'. *J. Applied Chem.* (U. S. S. R.) 9, 1525-28 (in French 1528) (1936); cf. *C. A.* 30, 7404. The reaction between Hg_2Cl_2 and NH_4OH proceeds as follows: $2Hg_2Cl_2 + 4NH_4OH = (Hg + Hg_2O) + HgNH_2Cl + 3H_2O + 3NH_4Cl$ and during boiling $Hg_2O \rightleftharpoons Hg + HgO$. On the basis of this reaction the following method for the detn. of Hg_2Cl_2 was worked out. Boil a mixt. of 0.3-0.4 g of Hg_2Cl_2 and 25-40 cc. of 3 N NH_4OH for 5-10 min., filter, wash all chlorides from the filter, acidify the filtrate with HNO_3 and titrate the NH_4Cl formed with 0.1 N $HgNO_3$ in the presence of $Fe(CNS)_3$ ($Fe(NO_3)_3$, about 3 cc., and 0.05 N NH_4CNS 1 cc.) to complete disappearance of color. To det. $HgCl_2$, mix 20 cc. of 0.1 N $HgCl_2$ with 25 cc. of 3 N NH_4OH and dil. to 100 cc., filter, dis regarding the first 20 cc. Acidify the filtrate and titrate as in the above detn. Eleven references. A. A. P.

A.S.T.M. METALLURGICAL LITERATURE CLASSIFICATION

BC

A-1

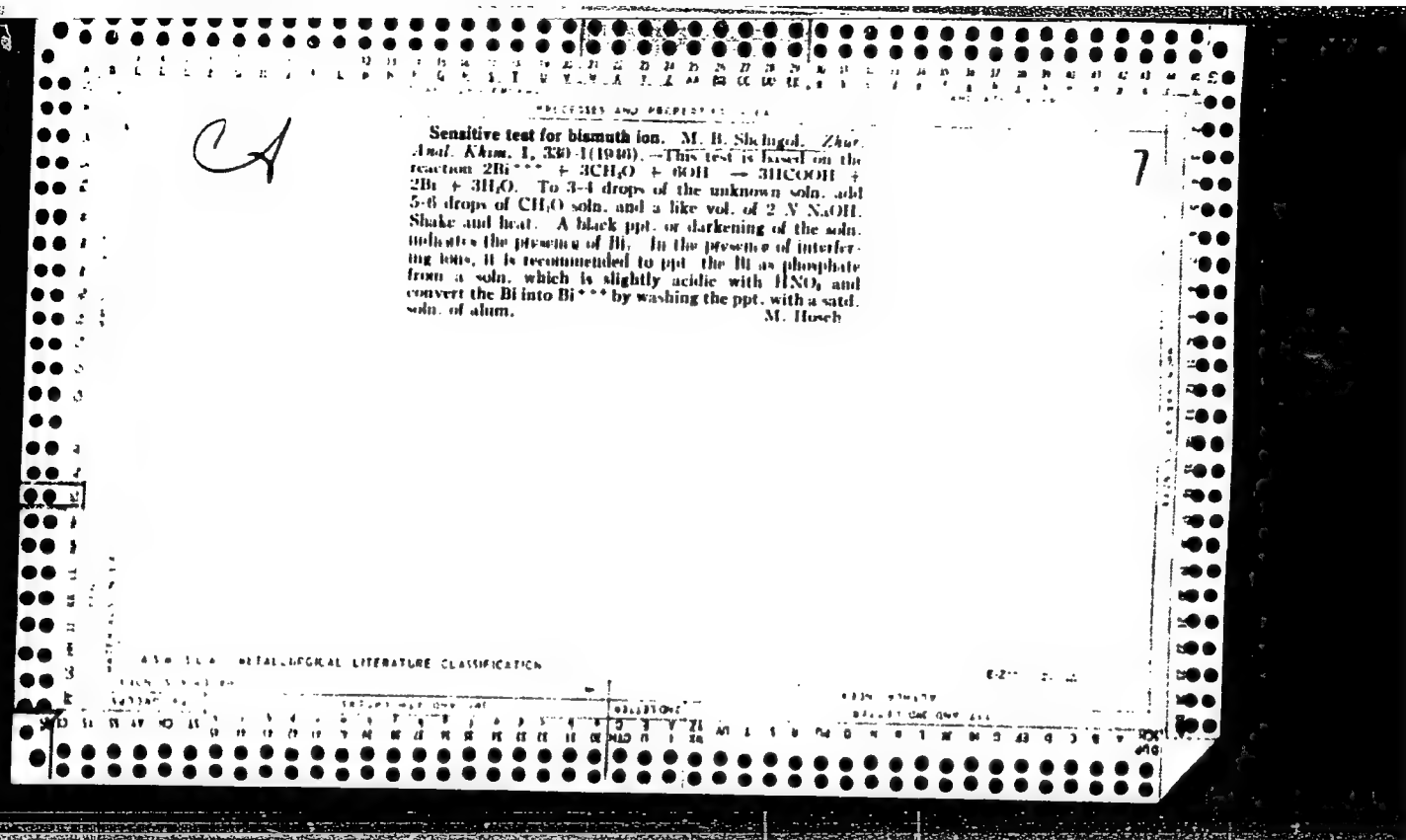
Zinc sulphide as a reagent for fractional detection of mercury, copper, and cadmium. M. Scharshvool (J. Appl. Chem. Russ., 1937, 10, 1644-1645).—An equal vol. of 10% KI is added to the solution, followed by 20% NaOH + Na₂CO₃ to a strongly alkaline reaction, and the solution is boiled and filtered, and the filtrate heated with ZnS; a black ppt. of HgS forms. The ppt. is boiled with (NH₄)₂SO₄ in aq. NH₃, the solution is filtered, and the filtrate is warmed with ZnS; a brown ppt. indicates Cu. A second portion of filtrate is decolorised with KCN, and ZnS is added; a yellow ppt. indicates CdS. R. T.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

11. analysis

Determination of halogens. M. B. Schuchigel (Zarod. Lab., 1940, 9, 310-313).—The solution containing Cl^- , Br^- , and I^- is divided into three parts. In (a) all three halogens are exactly pptd. using 0 mole of AgNO_3 . In (b) I^- is determined by adding HMnO_4 and starch and titrating with AgNO_3 . (c) is mixed with aq. NH_3 (final $[\text{NH}_3] = 0.3M$) and with 0 mole of AgNO_3 ; AgI and AgBr are pptd., but $\text{Ag}(\text{NH}_3)_2\text{Cl}$ remains in solution and is determined in the filtrate.

J. J. B.



11B

CA

PROCESSES AND PROPERTIES INDEX

Determination of bismuth in presence of halides, phosphates, oxalates, and uric acid. M. Shchigol and M. Gal'dus (Med. Inst., Order Red Labor Banner, Kiev). *Farmatsiya* 9, No. 6, 1-6(1946).—The Shchigol method of micro- or macrodetn. of Bi depends on alk. reduction by formalin of org. or inorg. Bi compds. to Bi. Halides, phosphates, oxalates, or uric acid do not interfere. The pptd. Bi is redissolved as bromide and detd. iodometrically. Application of the method to urine analysis is described. Julian F. Smith

chair Gen Chem.

Detn. of sulfide (or hydrosulfide) and thiosulfate ions by differential oxidation—notes on detn. of hydrosulfide group in glutathione and cysteine (Morette) 7. Mass spectroscopy for analysis in low-mass range (Siri) 1. Colorimetric detn. of Bi in pharmaceutical preps. and in biol. material (Cronheim) 17.

ASTM SLA METALLURGICAL LITERATURE CLASSIFICATION

W. I. Ilyin
Determination of permanganate and manganate ions when present together. M. O. Shchigol and N. B. Burchinskaya. *Zhur. Anal. Khim.* 2, 350 (3)(1947). To 10 ml. of approx. N soln. contg. MnO_4^- and MnO_6^{4-} add 2.5 ml. of 2 N NaOH and 20 ml. of 0.5 N KI. The reaction $6MnO_4^- + 1^- + 6OH^- \rightarrow 6MnO_4^{2-} + 1_2 + 3H_2O$ takes place. Add dropwise, while shaking, approx. 0.1 N soln. of Mohr's salt until all the MnO_4^- originally present and that formed by the above reaction is reduced to MnO_4^{2-} . Dil. the mixt. to exactly 100 ml., shake, and filter. To a 20 ml. aliquot add 10 ml. of 8 N H_2SO_4 and 20 ml. of water; after 10 min. in the dark titrate the I_2 formed by the reaction $1_2 + 5I^- + 6H^+ \rightarrow 3I_2 + 3H_2O$ with $Na_2S_2O_3$. To another aliquot of the original soln. add 20 ml. of 0.5 N KI and 10 ml. of 8 N H_2SO_4 , titrate the I_2 former with $Na_2S_2O_3$. $2MnO_4^- + 10I^- + 16H^+ \rightarrow 2Mn^{2+} + 5I_2 + 8H_2O$. $MnO_6^{4-} + 4I^- + 8H^+ \rightarrow Mn^{2+} + 2I_2 + 4H_2O$.
 M. Hosh

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

15

*148. A New Method for Quantitative Determination of Permanganate and Manganate Ions in Their Simultaneous Presence. (In Russian.) M. B. Shchigol' and N. H. Burchinskaya. *Zavodskaya Laboratoriya* (Factory Laboratory), v. 13, Sept. 1947, p. 1048-1050. Presents data on the quantitative reduction of permanganate to manganate in alkaline medium by thiocyanate ion. The rate of the reaction depends on the concentration of thiosulfate. Describes development of a satisfactory method for permanganate ion in mixtures with manganate ion.

24

Determination of thiocyanate in the presence of halogens. M. B. Shchigol and N. B. Burakshaya. *Zashchita* Lab. 13, 1178-80 (1947). Treat 10 ml. 0.1 N KMnO_4 and 15 ml. 2 N NaOH with the thiocyanate soln., let stand in the dark 15 min., then add 1.5 g. KI and 15 ml. 8 N H_2SO_4 . After 10 min. titrate the liberated I with thiosulfate. G. M. Kosolapoff

SHCHIGOL', M. B.

PA 62T76

USSR/Metals
Bismuth - Determination
Titration

Mar 1948

"Microvolumetric Determination of Bismuth," M. B.
Shchigol', Kiev Med Inst, 2 pp

"Zavod Lab" Vol XIV, No 3 - p. 276-7

Determined that bismuth ions in compounds with acetic acid and chromate, bichromate, iodate, or oxalate produce salts that are basically difficult to dissolve. Method is based on iodometric titration of chromate or iodate residues.

62T76

USSR/Chemistry-Oxalates

Dec 48

"Potentiometric Determination of Oxalates and Chlorides in an Ammoniacal Medium," M. B. Schigol', S. M. Birnbaum, Kiev Med Inst, 3 pp

"Zavod Lab" Vol XIV, No 12 *d. 1427-9*

Describes method for potentiometric determination of oxalate ions in a free state and mixed with chlorine ions in an ammoniacal medium. States hypothesis on formation of a complex compound of type $[Ag(NH_3)_2 X_2]$, with a silver coordination number of 4.

49/49T28

SHCHIGOL', M.B.

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001548920003-

28938 Potentsiometricheskoe opredelenie khromatov i khlorilov V ammiachnoy Sirede. Zavodskaya Laboratoriya. 1949, No. 9 S. 1027-30

SO: Letopis' Zhurnal'nykh Statey, Vol. 39, Moskva, 1949

7

Potentiometric determination of calcium ion in the presence of magnesium ion. S. M. Hirshbaum and M. B. Shehigol. *Zarodskaya Lab.* 15, 402-4 (1949); cf. *Ibid.* 14, 127 (1948).—The Ca is pptd. from a hot soln. with standard $\text{Na}_2\text{C}_2\text{O}_4$, and the excess is back-titrated in ammoniacal soln. with AgNO_3 . If the oxalate ppt. is not removed, absorption takes place; only 1 potential break occurs in titrations if the ppt. is removed. If Mg concn. does not exceed Ca by over 300%, the Ca detn. is readily made as the Mg remains in soln.; the only change in procedure is the addn. of 10% NH_4NO_3 to the cooled mixt. contg. the CaC_2O_4 ppt., followed by NH_4OH to form an ammoniacal complex with Ag oxalate. G. M. Kosolapoff

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

| 1ST AND 2ND ORDERS | | | | | | | | | | | | | | | | | | | | | | | | | | PROCEDURES AND PROPERTIES INDEX | | | | | | | | | | | | | | | | | | | | | | | | | | 3RD AND 4TH ORDERS | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| <p>Potentiometric determination of chlorides in the presence of bromides and iodides in ammoniacal medium.</p> <p>M. A. Schigol. <i>Zavodskaya Lab.</i> 15, 523-8 (1949).—The calomel electrode and Ag electrode (treated with dil. HNO₃, contg. NaNO₃) system was used in titrations with AgNO₃. If 1/10 of the amt. of NH₄OH required for complete Cl complex formation is used in the soln. of the sample Br and I can be titrated directly and completely. If enough NH₄OH is present to form (Ag(NH₃)₂Cl)₂ · (10 ml. N NH₄OH per 5 ml. 0.1 N Cl), 2 breaks are observed. The 1st indicates completion of Br or I ion reaction, the 2nd gives the completion of the above complex formation in binary solns., while in ternary solns. 3 breaks occur: iodide, bromides and the Ag-Cl-NH₃ complex formation, in turn. Checks on known solns. were excellent.</p> <p style="text-align: right;">G. M. Kovilapoff</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>ASACSLA METALLURGICAL LITERATURE CLASSIFICATION</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SECTION 1: STEEL | | | | | | | | | | | | | | | | | | | | | | | | | | SECTION 2: IRON | | | | | | | | | | | | | | | | | | | | | | | | | | SECTION 3: COPPER | | | | | | | | | | | | | | | | | | | | | | | | | |
| SUBGROUP 1: CARBON | | | | | | | | | | | | | | | | | | | | | | | | | | SUBGROUP 2: ALLOY | | | | | | | | | | | | | | | | | | | | | | | | | | SUBGROUP 3: SPECIALTIES | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 | | | | | | | | | | | | | | | | | | | | | | | | | |

Potentiometric determination of chromates and chlorides in ammoniacal solutions. M. B. Shulgol and S. M. Birnbaum. *Zashchita* Lab. 15, 1027-1030 (1970), cf. C.I. 43, 5637. Although titration of K_2CrO_4 with $AgNO_3$ in aq. soln. gives potential jumps corresponding to the formation of $AgCrO_4$ and of the pptn. of Ag_2CrO_4 , titrations in NH_4OH solns. give 3 potential jumps: formation of $(AgNH_4)_2CrO_4$, that of $(AgNH_4)_3CrO_4$, and, finally, that of $(AgNH_4)_4CrO_4$; the latter break is very clear in 0.1 N NH_4OH but vanishes when the amt. of NH_4OH is reduced considerably. It is possible to det. both Cl^- and CrO_4^{2-} potentiometrically in solns. contg. NH_4OH , especially in the presence of a little NH_4NO_3 , by titration with $AgNO_3$. The 1st break is given by Cl^- , the 2nd by CrO_4^{2-} . G. M. Kosolapoff.

C 4 7

Potentiometric determination of silver ions in an ammoniacal medium. M. B. Shchegol (Kiev Med. Inst.; Zvezdova Lab. 15, 142) 5(1949); cf. C. I. 43, 6933a. Titration with NH_4CNS or KI is suitable for detg. Ag in ammoniacal solns. in the presence of KBrO_3 , KIO_3 , NaH_2PO_4 , Na_2HPO_4 , Na oxalate; KI can also be used in the presence of NaNO_3 and K_2CrO_4 . The inflection points of all titration curves coincide. Detn. of Ag in Collargol and Protargol is also readily accomplished by KI titration. In the presence of Cu, Pb, or Fe, the addn. of 5% Na K tartrate soln. is advisable. G. M. Kosolupov.

7

Potentiometric determination of chromates and dichromates in mixtures. M. B. Shehigol and S. M. Huhns (Kiev. Mirl. Inst.). *Zuradokh* *Lab.* 10, 150-2 (1953).—Titrate the sample potentiometrically with NaOH and use a Pt-Pt black electrode to give the total Cr, and make the chromate detn. on a sep. sample by argentometric titration in NH₄OH with the Ag electrode.

G. M. Kosolapoff

SHCHIGOL, N. B.

Chemical Abst.
Vol. 48 No. 8
Apr. 25, 1954
Analytical Chemistry

(3)
~~Determination of trivalent iron with tetraborate. M. B. Shchigol and N. B. Burchinskaya (Kiev Med. Inst.). J. Anal. Chem. (U.S.S.R.) 7, 325-35 (1952) (Engl. translation). See C.A. 47, 1536d. H. L. H.~~

11-8-54

CHERNIKOV, I. B. and BORGULEVA, N. B.

"Determination of Iron in Blood, Drug Preparations, and Water," Vrachebnye Delo, No 3, 1952, pp 853-854.

SHONTGOL', M. R.

"Composition and instability constants of some silver complexes." (p. 721)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1952, Vol. 22, No. 5.

SHCHIGOL, M. B.

Chemical Abstracts
Vol. 48 No. 5
Mar. 10, 1954
Inorganic Chemistry

The composition and instability constants of some complex compounds of silver. M. B. Shchigol (Kiev Inst. Med.). *J. Gen. Chem. U.S.S.R.* 22, 187-94 (1952) (Engl. translation). — *Sci. C.A.* 47, 3107c. H. L. H.

Chem's

(2)

17

SHIGOL, M.B.

Shim
Volumetric determination of bismuth compounds in medicinal mixtures. I. M. B. Shigol (Med. Inst., Kiev). *Aptekhnica* Delo 5, No. 5, 24-7 (1958). The method is based on the property of Bi compds. of forming complexes with oxalates which are sol. in 0.1N mineral acids. Mix 5-10 cc. of a sol. Bi salt soln. with 5-10 cc. of an approx. 0.4N $\text{Na}_2\text{C}_2\text{O}_4$ soln., add methyl red, and titrate the mixt. with 0.1N NaOH. To the neutralized soln. add a measured excess of 0.1N NaOH, and destroy the Bi oxalate complex by boiling 2-3 min. Upon cooling, titrate with 0.1N H_2SO_4 with phenolphthalein. A. S. Mirkin

Chair of Gen. Chemistry

Shchigol, M.B.

7
3

✓ 3293. Determination of boric acid, salts of iron and aluminium when present together. M. B. Shchigol' and N. B. Burchinskaya (Kiev Medical Inst.). *Zhur. Anal. Khim.*, 1958, 11 (1), 108-110. — 2

Chem The potentiometric method previously described (*Ibid.*, 1952, 5, 289) is applied to the determination of Al and Fe in the presence of boric acid. Boric acid is determined by adding glycerol to the soln. after Al and Fe have been titrated with 0.1 N borax and titrating with 0.1 N NaOH.

G. S. SMITH

PM *[initials]*

SHCHIGOL', M.B.-; BURCHINSKAYA, N.B. (Kiyev)

Volumetric and analytical determination of bismuth in various
compounds and drugs. Report No.2. Apt.delo 6 no.2:36-38 Mr-Ap '57.
(BISMUTH) (MLRA 10:6)

Shehigol, M. B.

JOURNAL OF ANALYTICAL CHEMISTRY
Vol XII, Nr 4, 1957

7-4/54

A TITRIMETRIC DETERMINATION OF BISMUTH IN THE PRESENCE
OF PHOSPHATES, SULPHATES, OXALATES SALICYLATES AND HEAVY METALS

M. B. Shehigol

Kiev Medical Institute

A method for the alkalimetric quantitative determination of bismuth in the presence of sulphates, oxalates, salicylates, phosphates and heavy metals has been developed. The method is simple and fast. It gives reliable results and may be recommended for the quantitative determination of bismuth in the presence of heavy metals, as well as in other mixtures.

ad-8

SHCHIGOL', M.B.; BURCHINSKAYA, N.B.

Determining zinc in compounds. Apt. delo 7 no.1:48-50 Ja-F '58.
(MIRA 11:3)

1. Iz kafedry obshchey khimii Kiyevskogo meditsinskogo instituta.
(ZINC)

SOV/78-4-9-14/44

5(2)
AUTHOR:

Shchigol', M. B.

TITLE:

On Some Properties of the Borates of Zinc and Cadmium

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 9, pp 2014-2019
(USSR)

ABSTRACT:

A survey is given of the rapidly increasing number of publications on the subject of borates (Refs 1 - 14) with particular reference to the investigations of A. D. Keshan and coworkers (Refs 7 - 10). Then, the preparation of zinc- and cadmium-borate solutions in water and aqueous boric acid is reported on. The borates were obtained by the addition of borax solution to hot solutions of the nitrates. Analysis of the fine crystalline powders showed the compositions to be $\text{Zn}(\text{BO}_2)_2 \cdot \text{H}_2\text{O}$ and $\text{Cd}(\text{BO}_2)_2 \cdot 7\text{H}_2\text{O}$. Zinc diborate was also obtained simply by treatment of zinc oxide with boric acid. The solubility of zinc diborate (activity solubility product = $6.56 \cdot 10^{-11}$) is given in table 1, that of cadmium diborate (activity solubility product = $2.31 \cdot 10^{-9}$) in table 2. A. D. Keshan and coworkers (Refs 9, 10)

Card 1/2

On Some Properties of the Borates of Zinc and Cadmium SOV/78-4-9-14/44

indicated that the borates of alkaline-earth and of some heavy metals (Mn, Ag) form complex compounds with boric acid. This was confirmed by the increase in solubility of zinc and cadmium borate produced by rising concentrations of boric acid, as shown

in tables 3 and 4. It is assumed that the complex ions

$[\text{Zn}(\text{BO}_2)_4]^{2-}$ (instability constant = $1.61 \cdot 10^{-12}$) and $[\text{Cd}(\text{BO}_2)_4]^{2-}$ (instability constant = $2.30 \cdot 10^{-11}$) are formed. (Abstracter's

Note: The activity product of zinc diborate is twice given

wrongly: p 2015: $-6.56 \cdot 10^{-11}$, p 2018: $5.56 \cdot 10^{-11}$. $6.56 \cdot 10^{-11}$ was given as the correct value of table 1)

There are 4 tables and 24 references, 19 of which are Soviet.

ASSOCIATION: Kiyevskiy meditsinskiy institut (Kiev Institute of Medicine)

SUBMITTED: May 28, 1958

Card 2/2

SHCHIGOL', M.B.; BURCHINSKAYA, N.B.

Alkalimetric method for the determination of aluminum and iron occurring together and in medicinal compounds. Apt.delo 8 no.5:35-39 S-0 '59. (MIRA 13:1)

1. Iz kafedry obshchey khimii Kiyevskogo meditsinskogo instituta Ministerstva zdravookhraneniya USSR.
(ALKALIS) (IRON--ANALYSIS) (ALUMINUM--ANALYSIS)

SHCHIGOL', M.B.

Certain properties of salicylate complexes of trivalent iron.
Zhur.neorg.khim. 6 no.6:1294-1299 Je '61. (MIRA 14:11)

1. Kiyevskiy meditsinskiy institut, Kafedra obshchey khimii.
(Iron compounds) (Salicylic acid)

SHCHIGOL', M.B.; BURCHINSKAYA, N.B.

Some characteristics of aluminum borates. Zhur.neorg.khim. 6
no.11:2504-2511 '61. (MIRA 14:10)
(Aluminum borate)

SHCHIGOL', M.B.

Some properties of cobalt and nickel borates. Zhur.neorg.khim. 6
no.12:2693-2703 D '61. (MIRA 14:12)

1. Kiyevskiy meditsinskiy institut, kafedra obshchey khimii.
(Cobalt borate) (Nickel borate)

SHCHIGOL', M.B.; BURCHINSKAYA, N.B.

tartronic acids. Zhur. neorg. khim. 10 no.9:2090-2096 S '65.
(MIRA 18:10)

1. Kiyevskiy meditsinskiy institut, kafedra obshchey khimii.

SHCHIGOL', M.B.

Copper borates, oxalates, and salicylates. Zhur. neorg. khim.
10 no.9:2097-2107 S '65. (MIRA 18:10)

1. Kiyevskiy meditsinskiy institut.

SHCHIGOLEV, B. M.

PA 11/49T106

USSR/Physics
Astronomy

Jul/Aug 48

"Discussion in the State Astronomical Inst Imeni
Shternberg on the Cosmogonic Hypothesis of
Academician O. Yu. Shmidt," B. M. Shchigolev,
4 3/4 pp

"Astron Zhur" Vol XXV, No 4

Acad Shmidt published several articles elaborating
his views on origin of double stars, origin of
comets, age of earth, etc., from 1944 onwards. In
USSR, work on cosmogony may be valuable to
ideological struggle, hence its critical evaluation

14/49T106

USSR/Physics (Contd)

Jul/Aug 48

is obligatory. Discussion organized by Institute is
reported in "Vestnik Mosk Gos Univ." Present
article is transcribed from shorthand notes of
speeches. Shmidt's defense not considered
satisfactory by Shchigolev.

14/49T106